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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|--------------------------|---------------------|------------------|
| 09/980,220 | 02/07/2002 | Paulus Louis Guido Moers | 01925260 | 9945 |

7590 11/03/2004

Mayer Brown & Platt
190 South La Salle Street
Chicago, IL 60603-3441

EXAMINER

MILORD, MARCEAU

ART UNIT PAPER NUMBER

2682

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/980,220 | MOERS, PAULUS LOUIS GUIDO | |
| | Examiner | Art Unit | |
| | Marceau Milord | 2682 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11-26-2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because the boxes in figures 2 and 3 should be properly labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 11 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 6711390 B1.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the removal of the features of a program related FM RDS data including a program identification code is read from a second detected FM RDS transmitter and the program related FM RDS data from the second detected FM RDS data is compared with the stored program related FM RDS data and if the program related RDS from the second detected FM RDS transmitter is identical to the stored program related RDS data, allocating the linkage code

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defining memory locations for program data carried by the first FM RDS transmitter to the transmitter data from the second detected FM RDS transmitter is not non-obvious over the claims of 6711390 and therefore is not patentably distinct.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cvetkovic et al (US Patent No 6141536) in view of Miyake (US Patent No 6038434) and Miyake et al (US Patent No 5802066).

Regarding claim 11, Cvetkovic et al discloses a method for selecting a tuning frequency for receiving an RF transmitter within an RF frequency band (fig. 1; col. 1, line 63- col. 2, line 23), the method comprising: performing (tuner 12 of fig. 1; step 63 of fig. 6) a band scanning search to detect transmitters exceeding a predetermined reception quality level (figs. 2 and 4; col. 2, lines 48- 60; col. 5, lines 24- 36); allocating a permanency factor indicating the permanency in reception quality for the transmitters exceeding the predetermined reception quality level; and

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selecting a tuning frequency on the basis of the permanency factor (col. 4, lines 1- 21; col. 4, lines 40- 55 ; col. 5, lines 1- 52 ; col. 6, lines 10- 55).

However, Cvetkovic et al does not specifically disclose the step of storing the tuning data for the detected transmitters.

On the other hand, Miyake, from the same field of endeavor, discloses a method of receiving RDS data, which are multiplexed to a broadcast electric wave, including the steps of receiving the broadcast electric wave; storing predetermined data into a memory device; selecting the stored predetermined data on the basis of an instruction from the external (col. 2, lines 19-62). Furthermore, Miyake shows in figure 2, a data structure of a group type code 53, which indicates the group type, a traffic program identification code 55, a program type code 56, which indicates the type of the program which is presently broadcasted (col. 4, lines 29-67; col. 5, lines 37- 65).

Miyake et al also discloses a multiplex broadcast receiver comprising a memory control means for storing the classification demodulated from the multiplex broadcast wave being received into the memory; and station selecting means for reading out the classification information from the memory and executing the station selecting operation of the multiplex broadcast waves based on the classification information (col. 4, lines 15-67). In addition, Miyake also shows in figure 3, a decoder, which can recognize the PTY code including in the digital data and can be stored into the reception PTY memory (linkage code). The control section can read out the reception PTY code and display it on a display (figs. 3- 4; col. 5, lines 1- 46). Since the user can recall any type of program by depressing a proper channel key of the operating section, it is considered that the program code is linked and loaded into system memory (col. 5, lines 5-

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19). The coded call sequence instructions allow a procedure to call another procedure and are based upon the value that is stored in a memory space (linkage code technique). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Miyake et al to the modified system of Miyake and Cvetkovic in order to have a system in which the user can select the relevant program type by designating the preset mode and adding the relevant program to the PTY memory as new updated contents.

Regarding claim 12, Cvetkovic et al as modified discloses a method for selecting a tuning frequency for receiving an RF transmitter within an RF frequency band (fig. 1; col. 1, line 63- col. 2, line 23), wherein the band scanning search is repeated in subsequent scan cycles, and each detected transmitter increasing or decreasing respectively in permanency factor depending on the detection or the absence of detection respectively in subsequent scan cycles (figs. 2, figs. 4- 6; col. 2, lines 49- 65; col. 4, lines 1- 21; col. 5, lines 1- 8; col. 5, lines 24- 52; col. 6, lines 10- 36).

Regarding claim 13, Cvetkovic et al as modified discloses a method for selecting a tuning frequency for receiving an RF transmitter within an RF frequency band (fig. 1; col. 1, line 63- col. 2, line 23), the method further comprising erasing the tuning data of transmitters having a permanency factor decreasing below a predetermined permanency threshold level (figs. 2 and 4; col. 2, line 49 -col. 3, line 31; col. 5, lines 24- 52).

Regarding claim 14, Cvetkovic et al as modified discloses a method for selecting a tuning frequency for receiving an RF transmitter within an RF frequency band (fig. 1; col. 1, line 63- col. 2, line 23), the method further comprising selecting an RF transmitter from the detected transmitters carrying audio programs belonging to a predetermined PTY category.

Regarding claim 15, Cvetkovic et al as modified discloses a method for selecting a tuning frequency for receiving an RF transmitter within an RF frequency band (fig. 1; col. 1, line 63- col. 2, line 23), the method further comprising selecting an RF transmitter from the detected FM transmitters carrying traffic messages on the basis of field strength.

Regarding claim 16, Cvetkovic et al discloses an FM receiver (fig. 1) comprising: a first tuner circuit for receiving a first FM transmitter; a second tuner circuits (10 and 12 of fig. 1; col. 1, line 66- col. 2, line 3) for detecting FM transmitter signals received with a reception quality exceeding a predetermined quality threshold level in an FM band (figs. 2 and 4; col. 1, lines 13- 23; col. 2, lines 13- 23); wherein the first tuner circuit switches over from an actually received first FM transmitter to a second FM transmitter selected from the detected FM transmitters when the reception quality of the first FM transmitter decreases below a predetermined level (figs. 2 and 4; col. 2, lines 48- 60; col. 5, lines 24- 36); a processing unit which allocates a permanency factor indicating the permanency in reception quality to each detected FM transmitter, and wherein the selection of the second FM transmitter is based on the permanency factor (col. 4, lines 1-21; col. 5, lines 24- 36; col. 4, lines 40- 50; col. 6, lines 10-55).

However, Cvetkovic et al does not specifically disclose the feature of a storage means for storing the tuning data of the detected FM transmitters.

On the other hand, Miyake, from the same field of endeavor, discloses a method of receiving RDS data, which are multiplexed to a broadcast electric wave, including the steps of receiving the broadcast electric wave; storing predetermined data into a memory device; selecting the stored predetermined data on the basis of an instruction from the external (col. 2, lines 19-62). Furthermore, Miyake shows in figure 2, a data structure of a group type code 53,

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which indicates the group type, a traffic program identification code 55, a program type code 56, which indicates the type of the program which is presently broadcasted (col. 4, lines 29-67; col. 5, lines 37- 65).

Miyake et al also discloses a multiplex broadcast receiver comprising a memory control means for storing the classification demodulated from the multiplex broadcast wave being received into the memory; and station selecting means for reading out the classification information from the memory and executing the station selecting operation of the multiplex broadcast waves based on the classification information (col. 4, lines 15-67). In addition, Miyake also shows in figure 3, a decoder, which can recognize the PTY code including in the digital data and can be stored into the reception PTY memory (linkage code). The control section can read out the reception PTY code and display it on a display (figs. 3- 4; col. 5, lines 1- 46). Since the user can recall any type of program by depressing a proper channel key of the operating section, it is considered that the program code is linked and loaded into system memory (col. 5, lines 5- 19). The coded call sequence instructions allow a procedure to call another procedure and are based upon the value that is stored in a memory space (linkage code technique). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Miyake et al to the modified system of Miyake and Cvetkovic in order to have a system in which the user can select the relevant program type by designating the preset mode and adding the relevant program to the PTY memory as new updated contents.

Regarding claim 17, Cvetkovic et al as modified discloses an FM receiver (fig. 1) further comprising a tuning control means for varying the tuning of the second tuner circuit to repeat the band scanning search in subsequent scan cycles and wherein the processing unit increases

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stepwise the permanency factor of the transmitter at each detection or decreases the permanency factor stepwise in the absence of detection of the transmitter in a subsequent scan cycles (figs. 2, figs. 4- 6; col. 2, lines 49- 65; col. 4, lines 1- 21; col. 5, lines 1- 8; col. 5, lines 24- 52; col. 6, lines 10- 36).

Regarding claim 18, Cvetkovic et al as modified discloses an FM receiver (fig. 1), wherein the storage locations of the tuning data relating to transmitters decreasing in permanency factor below a predetermined permanency threshold level are released for storage of other transmitter data in the storage means (figs. 2 and 4; col. 2, line 49 -col. 3, line 31; col. 5, lines 24- 52).

Regarding claim 19, Cvetkovic et al as modified discloses an FM receiver (fig. 1), wherein the FM receiver is capable of receiving RDS signals and wherein when selecting the second FM transmitter, the processing unit continuously monitors the permanency factor of the FM transmitters carrying an audio program in the same PTY category as the audio program of the first FM transmitter (figs. 2 and 4; col. 2, lines 48- 60; col. 5, lines 24- 36).

Regarding claim 20, Cvetkovic et al as modified discloses an FM receiver (fig. 1), wherein the FM receiver is capable of receiving RDS signals, and wherein the processing unit operates to monitor the permanency factor of FM transmitters carrying traffic message information as well as the field strength thereof, the second FM transmitter being selected from the detected FM transmitters upon receiving a traffic announcement signal on the basis of field strength (col. 4, lines 1-21; col. 5, lines 24- 36; col. 4, lines 40- 50; col. 6, lines 10-55).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tomohiro US Patent No 5220682 discloses an automatic broadcast wave tuning device or a RDS receiver including a controller to enforce the RDS receiver to receive the former broadcast wave by setting a forbidden flag under such conditions as being unable to receive a program identification code.

Tomohiro et al USS Patent No 5428825 discloses a method of selecting receiving frequency for RDS receiver.

Kozaki et al US Patent No 5548828 discloses a radio data systems receiver that has a decoder data from a broadcast transmission signal.

Kishi US Patent No 5535442 discloses an FM tuner capable of speeding up an AF search and a PTY search.

Kimura et al. US Patent No 5815170 discloses a memory control method of a character multiplexed broadcast receiver for controlling utilization of a data storing field provided for storing data of pages of programs emitted in a character multiplexed broadcast.

Lyons US Patent No 6282412 B1 discloses a broadcast receiver that responds to broadcast stations having a listener-preferred program style.

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Ravi et al. US Patent No 6240280 B1 discloses an RDS or RBDS radio, which is used to listen to prerecorded media, the tuner monitors an RDS station in the background to determine when a traffic announcement is in progress.

Goken US Patent No 5584051 discloses an analog and/or digital radio broadcast transmission system and radio receiver, which includes a control signal having an item of control information concerning another, different type of transmission/receiver system.

Rupprecht et al. US Patent No 5390343 discloses a method of tuning a radio receiver using RDS information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 703-306-3023. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MARCEAU MILORD

Marceau Milord

Examiner

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MARCEAU MILORD
PRIMARY EXAMINER

10-29-04